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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/779,358	02/08/2001	Freeman Leigh Rawson III	AUS920000516US1	5784

7590 03/31/2004

Joseph P. Lally  
DEWAN & LALLY, L.L.P.  
P.O. Box 684749  
Austin, TX 78768-4749

EXAMINER

PATEL, HARESH N

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 03/31/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application

09/779,358

Applicant(s)

RAWSON, FREEMAN LEIGH

Examiner

Haresh Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### **DETAILED ACTION**

1. Claims 1-20 are presented for examination.

#### ***Specification***

2. The disclosure is objected. Some of the informalities are:
  - i. The attorney docket numbers of section "CROSS-REFERENCE TO RELATED APPLICATIONS" needs to be replaced with the co-pending application serial numbers.
  - ii. The "Summary of the invention" section needs to be modified to reflect the claimed subject matter. The copending applications, 09779361 and 09779362 also contain identical description. Hence, line 30 of page 2 – line 11 of page 3 needs to be removed.

Appropriate correction is required.

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Management of servers by polling Protocol Data Units with minimized management traffic at data link layer".

#### ***Drawings***

4. New corrected drawing is required in this application because Figure 5 contains term "protoco". It should be corrected as "protocol".

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. Claim 19 recites the limitation "the transferred information". There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-5, 7-11, 13, 15, 17, 18, 20, are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuasa et al. 6,085,238 (Hereinafter Yuasa) in view of Ganz et. al. 6,049,549 (Hereafter Ganz).

9. As per claims 1, 7, 8-11, 15, 17, Yuasa teaches the following:

a data processing network, comprising,

a method of managing a data processing network comprising a first server and a second

server each connected to a switch, the method comprising,

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a network interface card (NIC suitable for use in a first server of a data processing network, comprising:

first and second servers each connected to a central switch (e.g., one server connected to another server through an Ethernet switch, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47), wherein each server includes a network interface card NIC (e.g. NIC card, col., 21, line 8 – col., 22, line 44),

wherein the second server NIC is configured to store management information generated by the second server (e.g., response to the broadcast message, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47),

wherein the first server NIC is configured to send a polling request to the second server NIC (e.g., broadcast message from one server to other servers, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47), and

wherein the second server NIC is configured to respond to the polling request with transfer of the buffered information to the first server NIC (e.g., response to the broadcast message, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47).

However, Yuasa does not specifically mention about NIC comprising a processor and a buffer, and a low level polling. However, the concept of using the NIC cards for data link layer protocol for the communication between management server and other servers is clearly disclosed by Yuasa and it is also well known in the prior art, for example, Ganz, discloses the use of a low level polling using communication protocol (e.g., Support for QoS requirements is more easily provided at the MAC layer than at higher layers or the protocols. In particular, an adaptive MAC polling approach in combination with a resource manager provide efficient use of

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limited and time varying communication resources while satisfying QoS requirements, col., 1, line 6 – col., 3, line 57) and NIC comprising a processor and a buffer (e.g., NIC containing Control processor and buffers, figure 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Yuasa and Ganz because Ganz's use of NIC card having processor and a buffer to poll low-level messages would facilitate a management server to manage other servers on the network. The low-level messages can be easily sent from one device to another device that can help gather information from remote devices, as suggested by Ganz.

10. As per claims 2-5, 13, 18, Yuasa teaches the following:

the first server comprises a dedicated management server (e.g., system management server, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47) and further wherein the second server comprises a server appliance configured to receive processing requests from an external network (e.g., server connected to the internet, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47),

a plurality of additional server appliances (e.g., other servers, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47), each attached to the central switch (e.g., Ethernet switch, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47), wherein the management server is configured to manage each of the server appliances (e.g., system management server managing other servers, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47),

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the first server NIC is configured to broadcast the polling request to each of the server appliances on the network (e.g., management server NIC broadcasting the polling request to other servers, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47),

the central switch comprises an Ethernet switch (e.g., Ethernet switch, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47),

the second server composes a server appliance and the network comprises a plurality of additional server appliances (e.g., other server, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47), and further wherein issuing the polling request comprises broadcasting the polling request to each of the server appliances (e.g., management server NIC broadcasting the polling request to other servers, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47),

the second server comprises a server appliance enabled to receive processing request from an external network (e.g., other server connected to Internet, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47), and further wherein the data processing network includes a plurality of additional server appliances each locally connected to the first server (e.g., management server NIC communicating other servers, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47), and wherein the NIC processor is configured to broadcast the polling request to each of the server appliances (e.g., management server NIC broadcasting the polling request to other servers, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47).

11. As per claim 20, Yuasa does not specifically mention about a data link layer header.

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Ganz teaches the polling request includes a header consisting of a data link layer header including a media access control identifier of the second server (e.g., use of MAC header of the polling message, col., 5, line 26 – col., 7, line 62).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Yuasa and Ganz because Ganz's use of MAC header would facilitate sending a message to the target server. The MAC header containing information of the server address will be used to forward the message to the address specified server, as suggested by Ganz.

12. Claims 6, 12, 14, 16, 19, are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuasa and Ganz in view of "Official Notice".

13. As per claims 6, 12, 16, Yuasa and Ganz do not specifically mention about the first server NIC sending the polling request responsive to the expiration of a timer. "Official Notice" is taken that both the concept and advantages of providing timer is well known and expected in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include timer with the teachings of Yuasa and Ganz to facilitate a polling request to be generated when the timer expires. Usage of time will help automatically generate polling request at a desired frequency at the management server.

14. As per claim 14, 19, Yuasa and Ganz teaches the claimed limitation as mentioned above. However, Yuasa and Ganz do not specifically mention about clearing the NIC buffer after



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transferring the information to the host memory. "Official Notice" is taken that both the concept and advantages of clearing the NIC buffer after transferring the information to the host memory is well known and expected in the art.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include timer with the teachings of Yuasa and Ganze to facilitate clearing the NIC buffer after transferring the information to the host memory. Clearing the NIC buffer will help flush the data that has been transferred to the host memory. New data received by the NIC buffer will be able to use the same memory space of the memory space used by the flushed data.

### *Conclusion*

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

See Form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haresh Patel whose telephone number is (703) 605-5234. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday from 10:00 am to 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee, can be reached at (703) 305-8498.

The appropriate fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

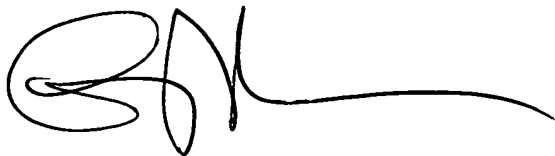
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Haresh Patel

March 20, 2004

LARRY D. DONAGHUE  
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to be "LDN", followed by a long horizontal line extending to the right.